Northeast Region Forest Pest Update – 07/19/06

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Insects:

BREAKING NEWS: **Emerald Ash Borer found in northern suburb of Chicago** – Emerald Ash Borer has been found in Wilmette, a northern suburb of Chicago. At this time there are more than 15 infested trees in a 5-block area that are infested with EAB. The suburb of Wilmette is about 35 miles south of the WI/IL border.

Ash bark beetle – when examining your trees for Emerald Ash Borer you might find damage from some of our native insects that attack ash, such as the ash bark beetle. In this area we have 3 different bark beetles that attack ash. Sometimes you'll find small holes where the adult beetles appear to have bored into the bark just far enough to find a protected spot to spend the winter. At other times you may find where they have bored into the tree, creating galleries or tunneling underneath the bark. This kind of damage can kill the tree. Photo at right from Tony Nowak, Greenville Director of Parks and Forestry.

Chicago lifts Asian Longhorned Beetle quarantines – this is excellent news! It was just announced that the Chicago quarantines for Asian Longhorned Beetle (ALB) have been lifted. What this means is that all of the areas that were previously infested with ALB have been eradicated, there are no more Asian Longhorned Beetles in Chicago! Chicago first found ALB 8 years ago and began a vigorous eradication plan as well as an aggressive public information campaign. Asian Longhorned Beetle is a large exotic beetle (left) that prefers to attack maple (as well as various other species) by boring deep into the wood of the tree, creating structural damage within the tree and eventually killing it. Now, the last infestation in Chicago is eradicated! Unfortunately the celebration of this eradication coincides with finding Emerald Ash Borer in a Chicago suburb (info above in Breaking News section).

EAB detection tree update - We continue to search for EAB here in Wisconsin but still have not found it. Survey crews have now completed at least one check of the emerald ash borer detection trees in state parks and forests. Native green buprestids have been seen on the sticky bands (photo at left). These were collected for identification; so far EAB has not been found. The photo at left is a picture of a native green buprestid beetle taken by Bill McNee at Wildcat Mountain State Park in Vernon County. For more information on the detection tree program you can contact from Bill McNee, NER gypsy moth suppression coordinator, at Bill.McNee@dnr.state.wi.us

Fall webworm - I'm beginning to see the webs of fall webworm showing up in trees. The webs are still moderately sized (foot long sections of branches are webbed, photo) but will continue to grow as the caterpillars continue to feed and grow. The caterpillars construct a loose web around the foliage that they want to feed on. This is one of our native caterpillars. Fall webworm defoliation is not as much of a concern as some of the early season defoliators are since the tree has been storing sugars all summer and will be preparing to shut down for the season by the time significant defoliation occurs from fall webworm. Since the caterpillars don't do significant harm to a tree homeowners should not to do significant harm to the tree trying to get rid of this insect.

Gypsy moth - from Bill McNee, NER gypsy moth suppression coordinator. Caterpillars are rapidly disappearing from southern NER counties as moth flight is underway. Nuisance caterpillars are peaking in northern counties and along the lakeshore, where males were beginning to pupate over the weekend of July 8-9. Most caterpillar complaints this year have come from Manitowoc and Marinette Counties, with several reports from Brown, Door, and Waushara Counties. So far, defoliation reports are limited to individual trees or no more than a handful of trees.

There hasn't been much caterpillar mortality from either the NPV virus or the fungal pathogen Entomophaga maimaiga because of the warm, dry June and July. Pupae are as large as they were last summer, which indicates that egg masses will also be large. Thus, populations are likely to continue rebounding from a collapse in 2004.

Eastern spruce gall adelgid - swollen areas on the twigs of spruce trees (right) may look like small cones but they're not, they're homes for small adelgids which live inside the gall and suck plant juices. For part of their life, adelgids live within these nice galls that the tree creates for them, the galls are usually less than in inch long and often form on year-old twigs. As fall approaches the galls will turn brown, dry out, split open, and release the adelgids. Another adelgid, Cooley Spruce Gall Adelgid, also makes galls on spruce but these will be larger (usually more than in inch long) and will be located at the tips of spruce branches. All adelgid galls will remain on the tree for the life of that branch.

Jack pine budworm defoliation – some areas of Marinette County are experiencing Jack Pine Budworm defoliation this year, including areas in the Townships of Stephenson, Silver Cliff, and Athelstane. This defoliation ranges from moderate to severe and can be found in young jack pine as well as mature stands of jack pine. Defoliated trees appear red or brown (right), this is due to the caterpillars feeding habit where they clip some needles but spin a light silken web (left) on the branches which the clipped needles stick to and later turn brown/red. In areas where defoliation is moderate to severe the caterpillars had all pupated and moths were emerging (left) and were laying eggs by the end of June. In areas with light defoliation there were still a few caterpillars present at the end of June, although most had pupated. With the caterpillars pupating and moths emerging the defoliation will end for this year and soon the rain and wind will remove the dead/red needles that are hanging in the tree which are stuck together with webbing.

As a general rule, young jack pine recovers more easily from this kind of defoliation than mature or over-mature jack pine does.

Larch casebearer defoliation – larch casebearer is defoliating tamarack this year. The defoliation is spotty throughout the northern parts of the northeast region and parts of northern region. Some areas are severely defoliated while neighboring stands have only light defoliation. Defoliation by larch casebearer, in combination with drought or other environmental stresses,

can make the trees susceptible to attack by Eastern Larch Beetle, a bark beetle that can attack and kill tamarack.

Oak twig pruner – reports of this insect are coming in from Marinette, Marquette, Waupaca, and Waushara Counties. The larvae of this insect bore into oak twigs (1/4" to 2" diameter). As the larvae mature they move from the center of the twig outwards chewing concentric circles until the only thing holding the tip of the branch to the rest of the branch is the thin layer of bark. Wind or gravity will then cause the branch tip to break off and fall to the ground, leaving a smoothly cut end on the branch (photo at right). Branch tips that break and fall to the ground can be 6 inches long to 3 feet long, and can be quite disturbing to a landowner when there are suddenly a lot of branches lying on the ground below their tree. Control consists of picking up the fallen twigs and disposing of them; the insects overwinter inside the fallen branches so removal of these branches will remove many of the insects as well.

Ugly nest caterpillar - this is not one of our tent caterpillars. These caterpillars are naked (hairless) with yellow bodies and black heads (right). Ugly nest caterpillars web leaves together very tightly and feed within the protection of their web. It can be very difficult to pull apart their web nests as they are webbed so tightly with strong webbing. When you rip open the web you'll find lots of frass as well as the caterpillars themselves. They will also pupate within the nest so you may find pupae. Hosts include hawthorn and cherry but you may find it on a few other trees. I found these caterpillars in Marinette County at the end of June.

Woolly ash aphids – these fuzzy aphids have been observed in Oconto and Brown Counties this year. Photo at right shows many aphids on the underside of the leaf with pen tip for comparison. These aphids cause the leaves of ash to curl and pucker. Wherever these aphids are found there always seem to be ladybug larvae present (which love to eat aphids) so I don't think control is necessary, the ladybugs will take care of them. The photo at left is of a ladybug larvae, some people think they look like dragons, or perhaps the mythical Hodag. Personally I think they look like ladybug larvae.

Diseases:

Anthracnose – this fungal leaf disease is still causing a lot of phone calls to my office. The most common species with moderate to severe damage from Anthracnose are oak and maple. Most trees with severe damage have already sent out a second set of leaves.

Broom rust on spruce – the fungus *Chrysomyxa. arctostaphyli* forms perennial brooms on spruce trees. There are multiple infections on the tree in the photo at right, can you find all 7 brooms? These brooms can get quite large and can form anywhere in the crown of the tree. This specimen was in Langlade County. During the spring,

brooms start out pale green, a result of needle chlorosis, then appear orange in mid-summer when the aecia are formed; the photo at left shows orange spore pustules (aecia) erupting from the undersides of needles. Needles in the broom are shed in the fall. I believe that the secondary host of this rust fungus is bearberry.

Dutch elm disease – symptoms, including whole tree wilting are showing up. This exotic fungal disease is spread by the elm bark beetle and can spread underground through root grafts. Since bark beetles are generally not attracted to smaller trees (sapling to small pole size) people often get their hopes up that their small elms have "escaped" and will survive and grow to maturity. Unfortunately, as soon as the trees are large enough for the bark beetles to be attracted to them the trees may become infected with dutch elm disease. The first symptom you will see is usually a single branch on which the leaves turn yellow and die. The rest of the tree will die shortly. Elm trees attempt to fight the fungus by walling off the portion of the tree where the fungus is located but this can lead the tree to self-induced water deprivation and death.

Pine needle rust – pine needle rust was noticed in Waupaca County this year. The yellow bumps on the needles in the photo at right are the rust pustules erupting from the needles. Pine needle rusts spend part of their life in the pine needle and part of their life on aster or goldenrod species. If you have severe infections on your pines you might consider trying to control the goldenrod rather than treating the pines. Photo from Mike Schuessler.

Other:

Drought – north and west portions of the Northeast Region are currently classified as Abnormally Dry by the US Drought Monitor, only the Lakeshore Counties have had more normal amounts of rain. The US Drought Monitor maps can be found at http://www.drought.unl.edu/dm/monitor.html

Hail damage – an isolated hail storm passed through some parts of Oconto County on July 1.

Large, 3" diameter hail (right) damaged trees by tearing bark, breaking branches, and stripping leaves. The photo at left shows the damage where a hail ball hit the bark, damaging the cambium underneath. The bark has now cracked and split and there will be a dead spot in the cambium at the point. The high risk period for oak wilt is April 15 – July 1 so technically we were out of the high risk period but be aware that oaks damaged during this time storm will have many wounds that could attract sap beetles. See the next topic for more oak wilt info.

Oak Wilt Guidelines Draft available – a draft of the new oak wilt guidelines is available. This draft is arranged in a Dichotomous Key to help you make a decision about whether to harvest a stand with oak in it. The Key operates by you first choosing whether you have 1) no oak wilt in the county of in the stand, 2) oak wilt in the county but not in the stand, or 3) oak wilt in the county and in your stand. After you've made that choice you then choose the time of year that you want to do a harvest, then you identify the Basal Area of oak in that stand, then chose a terrain (flat/rolling or hills/valleys), then you choose a soil texture. All this will bring you to a ranking which will give you guidance on the risk of introduction of oak wilt, impact, and overall risk to that stand. The new draft guidelines also make a distinction between northern stands and southern stands, indicating that the high risk time period for Southern Stands is April 1 – July 15, and the high risk time period for Northern Stands is April 15 – July 15. This is a draft, and will be under review by a subset of foresters for the next 6 months. If you would like a copy of the draft or would like more information please contact Jane Cummings-Carlson at 608-275-3273, or email her at Jane.Cummings-Carlson@dnr.state.wi.us

Wind damage – a storm that passed through portions of Manitowoc County on July 17 damaged trees, tearing branches out of trees as well as completely uprooting other trees.

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